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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/808,479 | 03/25/2004 | Hiroshi Abe | 03500.018050 | 6315 |
| 5514 | 7590 | 02/16/2006 | EXAMINER | |
| FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112 | | | WALSH, RYAN D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2852 | |

DATE MAILED: 02/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/808,479 | Applicant(s) ABE ET AL.  | |
| | Examiner Ryan D. Walsh | Art Unit 2852 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-6 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>5/19/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 1 and 3 objected to because of the following informalities:

Regarding claim 1, the claimed language “and 0.10 mm” appears to be inconsistent with the specification. In the present specification, paragraph [0026] (US Pub. 2004/0197115), the roughness curve average length states “0.01mm or less”, which is inconsistent with the claim. Appropriate correction is required.

Regarding claim 3, the claimed language “...proportion of the component (A) to the component (A)” appears to be incorrect. It appears the language should recite, -- proportion of the component (A) to the component (B)--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kakii et al. (US Pub. 2002/0086125) in view of Hosoya et al. (US Pat. # 4,967,231).

Regarding claim 1, Kakii et al. teach, “A charging roller for a contact charging assembly, comprising a conductive substrate (ref. # 2 & [0007]-[0008]), an elastic layer (Fig. 1, ref. # 3) which covers the periphery of the conductive substrate, and a seamless tube (Col. 7, Ln. 34) externally so fitted as to cover the periphery of the elastic layer

[0053], wherein said seamless tube constitutes a surface layer of the charging roller (Fig. 1, ref.# 4).” Kakii et al. do not teach, “wherein said charging roller has a surface of 3.0 μm or less in ten-point average roughness R_z jis 94, and 0.10 mm or less in roughness curve average length R_{Sm} .” However, Hosoya et al. teach, “wherein said charging roller has a surface of 3.0 μm or less in ten-point average roughness R_z jis 94, and 0.10 mm or less in roughness curve average length R_{Sm} (see Col. 14, Ln. 44-54).” It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kakii et al. invention to include said charging roller having a surface of 3.0 μm or less in ten-point average roughness R_z jis 94, and 0.10 mm or less in roughness curve average length R_{Sm} .

The ordinary artisan would have been motivated to modify Kakii et al. invention in a manner described above for at least the purpose of decreasing size, reducing the decline of capacity due to protracted use, and precluding the occurrence of dispersion of characteristic, efficiency, or performance (see Hosoya et al., Abstract).

Regarding claim 2, Kakii et al. teach, “wherein said seamless tube comprises a high-impact polystyrene HIPS ([0054]-[0055], specifically [0055], Ln. 8).”

Regarding claim 4, Kakii et al. teach, “wherein said seamless tube comprises a multi-layer structure having a plurality of layers (Fig. 1, ref. # 4 (4a & 4b)).”

Regarding claim 5, Kakii et al. teach, “A process cartridge comprising an electrophotographic photosensitive member and the charging roller according to claim 1

which are integrally supported together, and being detachably mountable on a main body of an electrophotographic apparatus (Abstract, Ln. 15-17)."

Regarding claim 6, Kakii et al. teach, "An electrophotographic apparatus comprising an electrophotographic photosensitive member and the charging roller according to claim 1 (Abstract, Ln. 15-17)."

Allowable Subject Matter

Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 3, the prior art does not teach or suggest the claimed, "proportion of the component (A) to the component (B) is (A)/(B)=80/20 to 40/60 in weight ratio."

Note: "component (B)" is shown corrected.

Conclusion

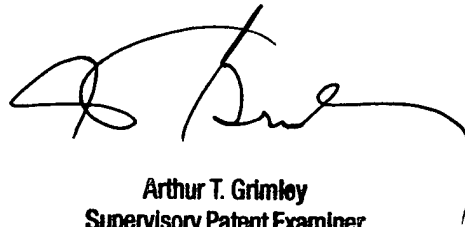
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Takagi et al. (US Pat. # 5,466,499), Funabashi (US Pub. 2003/0044199) and Abe et al. (US Pub. 2002/0039500, each cited for their similar structure and physical properties related to the present invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan D. Walsh whose telephone number is 571-272-2726. The examiner can normally be reached on M-F 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on 571-272-2136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan D. Walsh
Patent Examiner
Art Unit 2852

A handwritten signature in black ink, appearing to read 'Arthur T. Grimley', with a long, sweeping horizontal line extending to the right.

Arthur T. Grimley
Supervisory Patent Examiner
Technology Center 2800